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MODULAR CARRIER FOR FLAT ITEMS

TECHNICAL FIELD OF THE INVENTION

This invention relates to a carrier and/or a system for carrying or storing substantially flat items. Such items could be CD's, Zip Drives, CD ROM's, DVD's or the like type of recording medium or devices such as sleeves in which they are stored. Of course other substantially flat items could comprise flat items that are intended to be carried or stored by means of this invention.

BACKGROUND ART

With substantially flat items such as, for example, CD's, Zip Drives, CD ROM's, DVD's or other substantially flat items such as sleeves for holding these items, it is often desired to transport them from one site to another. At present this requires that the items be unloaded from a first storage container, transferred to some form of carrying device, and then, usually, transferred to a second container or holder on site. This is of course disadvantageous in that in transferring the CD's or the like, damage can occur. Also there is always a risk of loss and groups of like items are not readily able to be grouped together. This is disadvantageous.

OBJECT

It is therefore an object of the present invention to provide a carrier which can also be used as a holding system for carrying objects which will obviate or minimise the foregoing disadvantages in a simple yet effective manner or which will at least provide the public with a useful choice.

20 DISCLOSURE OF THE INVENTION

Accordingly, the invention consists in a carrier for substantially flat items, the carrier having a first engagement means to removably receive one or more of the substantially flat items, in use, the carrier optionally being shaped and/or having at least a second engagement means to enable

a number of carriers to be engaged one with another, and the carrier having a third engagement means to enable the carrier or a number of carriers to be placed in, or on, a selected one of a plurality of available receiving devices comprising transportation, storage or filing means.

5 Preferably the carrier comprises an elongated socket member having one or more webs or bars across the mouth thereof the webs or bars being engageable in use by a recess or recesses in the substantially flat item, or an item associated therewith.

Preferably the substantially flat item comprises a holder for CD's, Zip Drives, DVD's or the like.

10 Preferably the second engagement means comprises co-operating apertures and protrusions on the carrier, such that two or more carriers can be removably serially connected.

Preferably the protrusions are a "snap" or interference fit within the co-operating apertures.

Preferably the third engagement means comprises one or more ribs or channels on the carrier engageable in use with channels or ribs on a receiving device.

Preferably the ribs have a bulbous end and the channels have a narrow mouth.

15 Preferably the channels are a "snap" or interference fit over the ribs.

Optionally the third engagement means comprises one or more apertures or protrusions on the carrier engageable with protrusions or apertures on the receiving device.

In a further aspect the invention to consists in a system for transporting substantially flat items, the system including at least a carrier according to any one of the preceding paragraphs.

20 Preferably the transportation means comprises one or more of a wallet, a container and/or a transportation plate.

Optionally the wallet, container or transportation plate is fitted with rails or channels or protrusions or apertures to connect with the third engagement means of the carriers.

In a still further aspect the invention consists in a system for storing or filing substantially flat items, the system including at least a carrier according to any one of the preceding paragraphs.

Preferably the system for storing or filing further includes a wallet, container, or mounting plate into or onto which the carrier can be positioned.

- 5 Preferably the wallet, container or mounting plate is fitted with rails or channels or protrusions or apertures to connect with the third engagement means of the carriers.

Optionally the mounting plate may be connected to adapter plates or legs, substantially at right angles to the mounting plate, such that the mounting plate complete with adapter plates or legs can sit or stand on a surface.

- 10 Optionally the adapter plates or legs are provided with hook means, such that the mounting plate complete with adapter plates or legs, can be supported within a typical office filing drawer, being supported on the rails contained therein.

Optionally the mounting plate may be curved.

- 15 Optionally the mounting plate whether flat or curved may be provided with end fittings to act as feet.

To those skilled in the art to which the invention relates, many changes in construction and widely differing embodiments and applications of the invention will suggest themselves without departing from the scope of the invention as defined in the appended claims. The disclosures and the description herein are purely illustrative and are not intended to be in any sense limiting.

- 20 One preferred form of the invention will now be described with reference to the accompanying drawings in which,

BRIEF DESCRIPTION OF THE DRAWINGS

FIGURE 1 is a diagrammatic perspective view of a carrier according to one preferred form of the invention,

FIGURE 2 shows a flat item suitable for attachment to a carrier of Figure 1,

FIGURE 3 shows a number of carriers of Figure 1 connected together, and an unconnected carrier showing the protrusion used for engagement,

FIGURE 4 shows the carrier of Figure 1 in position inside a wallet or container,

- 5 FIGURE 5 is a diagrammatic perspective view of a number of carriers mounted on a transportation or storage device,

FIGURE 6 shows a transportation or storage device fitted with adapter plates,

FIGURE 7 shows a transportation or storage device fitted with mounting feet,

FIGURE 8 is a perspective view of an alternative embodiment of the invention, and

- 10 FIGURES 9 to 11 are respectively plan, side elevation and end elevations of the embodiment of Figure 8.

BEST MODE FOR CARRYING OUT THE INVENTION

- With reference to Figure 1, a carrier (10) is manufactured comprising at least a base portion (17) and two sides (12 and (13). Two spaced apart bars (11) and are supported by sides (12) and (13). Protrusions (14) extend from side (12) and apertures (15) are provided in side (13).
15 Additionally two channels (16) preferably having a narrow mouth are set into the base portion (17).

- With reference to Figure 2, the carrier (10) is able to receive a substantially flat item (20) which in a preferred form comprises a sleeve with a cutout or number of cutouts (23) at one end thereof. The cut-out or cut-outs (23) have a narrow mouth. The cut-outs (23) of the
20 substantially flat items which may comprise a sleeve to hold one or more CD's, Zip Drives, CD ROM's, DVD's or the like are engageable with the bars (11) of carrier (10).

The cut-out or cut-outs (23) are provided in an end section (21) of the substantially flat item (20) which is substantially narrower in thickness than the remainder of the substantially flat items in particular when one or more, such as two, CD's or the like are inserted in the sleeve.

Figure 3 shows a construction wherein a number of carriers (10) are able to be connected together. This is achieved by the provision of suitable engagement means, which may comprise the protrusions (14) on one side of the carrier (10) and the corresponding apertures or sockets (15) on the other side. The protrusions (14) fit into the sockets (15) and may be a "snap" fit or interference fit, either of which is achieved by suitable shaping and sizing of the protrusions (14) and the receiving apertures (15).

10 Various carriers or storage components are provided in the system. **Figure 4** shows a wallet type construction (30), which has a base (31), and a lid (32) connected by a hinge at (33) such as a living plastic hinge. The channels 16 of the carrier 10 "snap" onto rails 34 provided in the wallet 30. That is to say the channels 16 and rails 34 are complementary. Alternatively an interference fit can be provided.

15 A transportation or mounting plate (40) or similar support is shown in **Figure 5** and inter-engagement means are provided to enable a carrier or carriers (10) to be engaged therewith. This may comprise, for example, the channels (16) having a narrow mouth on the underside of the carrier (10) which engage onto ribs (41), having a bulbous cross section. The ribs (41) and channels (16) can mate with a "snap" fit, or by introducing the (16) channels onto a section of
20 the ribs (16) with a reduced cross section and then sliding the carrier (10) along the ribs (41). Generally a "snap" fit is preferred.

Figure 5 shows a number of carriers (10) fitted to a plate (40) by these means, such that the carriers are substantially held onto the plate (40).

Figure 6 shows a storage system for use in a typical office filing drawer. Two adapter plates (42) (only one shown) are attached to the ends of a mounting plate (40). The adapter plates are constructed with a hook or hooks (44) on their top edges such that the storage system can be suspended from the side rails of a suspension drawer whilst allowing the storage system to be readily removed. The storage system can also be placed into an archiving box (not shown).

Figure 7 shows a mounting plate (40) having a hump back shape, and also shows ribs (41) engaged with channels (16) on the underside of the carriers. Feet (43) are connected to the ends of the mounting plate (40).

5 In the embodiments of Figures 8 to 10, the channels (16) are differently shaped being substantially rectangular. A snap action is achieved by ribs (50) in the mouth of the channel (16) which snap over ribs (51) on a rail (52) (shown in Figure 10). Alternatively the ribs (50) could be an interference or "squeeze" fit onto the side of a rail (51) which is not provided with ribs (51).

10 In summary, substantially flat items such as sleeves (20) may be engaged with the carrier (10). The carrier (10) may be contained in a wallet (30) for transportation or mounted on a plate (40) for transportation or storage. The plate may stand on a surface, be suspended in a drawer or placed into an archiving system. The carriers 10 may also be serially connected one to another.

15 Thus it can be seen that at least the preferred form of the invention a carrier and/or system for carrying and storage are provided which will enable substantially flat items such as carriers for CD's, Zip Drives, CD ROM's, DVD's or the like to be transferred from one place to another in a simple yet effective manner which frequently will not involve substantial separation and reconnection of the substantially flat items. This is advantageous. The construction is also economical in use of material, which is also advantageous.